

Jander, Gerhart and Wendt, Hildegard.
FUNDAMENTALS OF A CHEMISTRY IN ABSOLUTE
NITRIC ACID, I. 5 Dec 61, 21p. 25 refs.
Order from SLA \$2.60 63-10559

Trans. of Z[eitschrift für] Anorg[anische] Chem[ie]
(East Germany) 1948, v. 257, p. 26-40.

DESCRIPTORS: Chemistry, *Nitric acid, *Solvents,
Solvates, Chemical properties, Complex compounds,
Electrical conductance.

(Chemistry--Physical, TT, v. 9, no. 10)

63-10559

I. Jander, G.
II. Wendt, H.

Office of Technical Services

Silico-Phosphates and Di-Calcium Orthosilicate,
by L. M. L. Booth, K. Erler, R. Klement.

GERMAN, per, Z Anorg Chem, Vol CCLVII, 1948,
pp 173-179.

DSIR/30509/CT

Sci - Chemistry
Feb 58

5-8, 864

Reinken, Hans.
HYDROXYCARBOXYLIC ACIDS AS COMPLEX FORM-
ING AGENTS. I. COPPER-ALKALI-TARTRATE AND
THE SCHWEITZER'S REAGENT. [1955] 8p.
Order from SLA \$1.40

62-16536

Trans. of Zeitschrift für Anorganische Chemie (East
Germany) 1943, v. 257, p. 340-348.

DESCRIPTORS: Chemical analysis, *Tartrates,
Succinic acids, Phenols, *Hydroxides, Solubility,
*Cellulose, Copper, *Carboxylic acids, Reagents.

(Chemistry--Analytical, TT, v. 9, no. 5)

62-16536

- I. Title: Schweitzer's
Reagent
- I. Reinken, H.
- II. Title: Copper-alkali-tar-
trate . . .

Office of Technical Services

On the Diffusion of Oxygen in Ag and AgCu Alloys,
by K. Hauffe.

GERMAN, per, Zeit Anorg Chem, Vol 247, 1948,
pp 279-288.

*Nat Bur Stand TT 70-57814

Sci-Chem
Jul 70

Jander, Gerhart and Wendt, Hildegard.
 FUNDAMENTALS OF A CHEMISTRY IN ABSOLUTE
 NITRIC ACID. II. SOLVOLYSIS REACTIONS AND
 AMPHOTERIC PHENOMENA. 15 Dec 61, 23p. 18 refs.
 (Order from SLA \$2.60) 63-10560

Trans. of Z[ur]eichn[ung] Anorg[anische] Chem[ie]
 (East Germany) 1949, v. 258, p. 1-14.

DESCRIPTORS: *Nitric acid, *Solvent action, Cadmium
 compounds, Zinc compounds, Acetates, Potassium com-
 pounds, Lead compounds, Nitro radicals, Phenols,
 Silicon compounds, Chlorides, Phosphorus compounds,
 Oxychlorides, Granyl radicals, Nitrates, Perchlorates.

It is shown that solvolysis reactions take place in abso-
 lute nitric acid also, just as they do in other anhydrous
 but "waterlike" solvents; and indeed the type of solvol-
 ysis reaction in nitric acid is predominantly the same as
 (Chemistry--Inorganic, IT, v. 10, no. 2) (over)

63-10560

- I. Title: Amphoteric substances
- I. Jander, G.
- II. Wendt, H.
- III. Title: Solvolysis...

Office of Technical Services

On the Binary Systems of Titanium With the Elements
Nitrogen, Carbon, Boron, and Beryllium, by P.
Ehrlich, 35 pp.

GERMAN, per, Z fuer Anorg Chem, Vol CCLIX, 1949,
pp 1-41.

SLA 57-2852

ACSIL Tr 797

Sci - Chemistry

51, 768

Aug 57

DSIR/3/52/5

62-18213

Schafer, Harald.

STUDIES ON THE $\text{Fe}_2\text{O}_3\text{-FeCl}_3\text{-H}_2\text{O-HCl}$ SYSTEM.I. [INFLUENCE OF HYDROGEN CHLORIDE ON α -IRON OXIDE]. [1962] [43]p. 25 refs.

Available on loan from SLA

62-18213

Trans. of Zeitschrift für Anorganische Chemie (East Germany) 1949, v. 259, p. 53-74.

DESCRIPTORS: *Hydrogen compounds, *Chlorides, *Iron compounds, *Oxides, Chemical reactions, Chemical equilibrium, Temperature, Dissociation.

Experimental studies were made of the equilibria which were reached following the action of HCl on $\alpha\text{-Fe}_2\text{O}_3$ between 300 and 1000°C. The methods of the equilibrium measurements are described and the accuracy of the results is discussed. The reaction equilibria $\text{Fe}_2\text{O}_3 + 6 \text{HCl} \rightleftharpoons \text{Fe}_2\text{Cl}_6 \text{ gas} + 3 \text{H}_2\text{O}$ (Chemistry--Physical, TT, v. 8, no. 9) (over)

I. Schäfer, H.

II. Title: Influence...

Office of Technical Services

Au X-Ray Study of the Systems Tl/S, Tl/Se and Tl/Te,
by H. Hahn.
GERMAN, per, Zeit Anorg Chem, Vol 260, 1949,
pp 110-119.
*Nat Bur Stand TT 70-57812

Sci-Chem
Jul 70

A Contribution to the Chemistry of the Tungstates,
by Inge Rabes, Rudolf Schenck, 30 pp.

GERMAN, per, Z Anorg Chem, Vol CCLIX, 1949, pp 201-219.

AEC Tr-5125

Sci - Chem
Aug 62
List 71

206,082

Fluoro-Complexes I: Iron, Cobalt, Nickel
and Copper, by Wilhelm Klenz, Enno Huss,
6 pp.
GERMAN, per, Z. Anorg. Chemie, 1949,
pp 221-226.
Dept of Navy Tr 4470/ONI Tr 2050

Sci-Min/Net
Feb 66

296,226

Further Studies on Crystalline Rare-
earth Hydroxides, by R. Fricke, W.
Kurtwachtner.
GERMAN, per, Zet. Anorg. Chem.,
Vol 259, pp 303-308, 1949 9229638
AEC ORNL-Tr-660

Sci-Chem
Oct 65

290,609

The Chemistry of the Condensed Phosphates and
Arsenates. II. The Structure of Sodium Tetrametaphosphates and the Properties of the Tetraphosphates
by Erich Wille, Rudi Ratz, 17 p.

GERMAN, per, Zeitschrift fur Anorganische Chemie,
1949, Vol CCLIX, pp 255-266.

SLA 59-17291

Sci
Jan 60
Vol 2, No 8

105,572

The Chemistry of Condensed Phosphates and Arsenates,
Pt 3, The Manufacture and Properties of Meta-Arsena-
tophosphates and the Constitution of Maddrell's Salt
(NaPO_3)₂, 19 pp. UNCLASSIFIED
3X², Erich Thilo, Ilse Flatschke

GERMAN, per, Z. Anorg. Chem., Vol CCLIX, 1949,
pp 297-314.

AND Tr 1895

Scientific - Chemistry

15,143

The Higher Nickel Hydroxides, by O. Glemser,
J. Riederhand.

GERMAN, no per, Zeit Anorg Chem, Vol CCLXI, 1950,
pp 26-42.

R.A.E. Farnborough 588

Sci - Chemistry
Mar 57 CTS/dex

45, 085

The Structure of Higher Nickel Hydroxides, by
O. Glemser, J. Einerhand , 15 pp.

GERMAN, per, Z Anorg Chem, Vol ~~XXXXXX~~ CCLXI, 1950,
pp 43-51.

SIA Tr 57-1845

Sci

Jun 58

65,882

Heat Treating, conditions and mechanism of transformation
of Martensite and Scale-Resistant Hard Alloys, with
Special Reference to Titanium-Carbide Base
Materials, by R. Nierfer, P. Rott. UNCL.

GERMAN, part, L. Among Chem, Vol 60:25 COINTEL, Part
I and V, 1950.

British Iron and Steel Ind
(no number given)

Sci - 13in/100t
Sep 59

98, 2-2

On the Dark Green Hydroxide Compounds of Iron,
by W. Feitknecht, G. Keller.

Full tr

per,
GERMAN, Zeit für Anorg Chem, Vol CCLXII, 1950,
pp 61-68.

Navy Tr: No 1442/HRL 595

Sci - Chemistry
Jan 1957 CTS/aex

43,048

The Diffusion of Carbon in Sintered
Steel Alloys, by W. Seith, 18 pp.
GERMAN, per, Z. Anorg. Chem. 262, 1950
pp. 129-146.
*NBS TT 70-57838

Sci/mat
Jun 70

The Scaling Behavior and Oxidation Mechanism
of Heat- and Scale-Resistant Hard Alloys, in
Particular of those with a Titanium-Carbide
Base, by R. Vieffer, S. Kolbl, 16 pp.

GERMAN, per, Z. Anorg Chem, Vol. CCXLII, 1950,
pp 229-247.

Assoc Tech Serv 61H120

Sci
Aug 58

OTS 60-16765 70,874

The Precipitation of Alumina Hydrate According to
Bayer as a Problem of E Nucleus Formation, by
E. Hermann, Stipetic, 42 pp.

GERMAN, per, Zeit fuer Anorganische Chemie,
Vol CCLXII, 1950, pp 258-287.

S.L.A. Trans 943

Sci - ~~Physics~~ *chemistry*
~~Minerals/Metals~~

29,900

The Effect of Sulfur Dioxide on Ammonia, by
M. Goehring and H. -W. Kaloumenos.
GERMAN, per, Zeitschrift fuer /organische und
Allgemeine Chemie, Vol 263, 1950, pp 137-144.
NTC 71-13721-07B

Feb 72

Anomalous Mixed Crystals in the System $\text{ThO}_2\text{-La}_2\text{O}_3$,
by F. Hund, W. Durrwachter.

GERMAN, per, Z Anorg Chem, 1951, Vol 265, pp 67-72.

*AEC

Sci
15 Jun 62

Contributions to the Chemistry of Elements, by
Schaefer.

CHIRSCAU, par, Z fuer Anorganische Chemie, Vol
CXLXVI, Hamburg, 1951, pp 140-151.

Dept of Interior
US Bur of Mines
Div of Mineral Tech
Region IV
Rolla, Missouri

Sci - Chem

87,559

May 59

Schaefer, H., Goesser, C., and Beyer, L. CHEMISTRY OF THE ELEMENTS NIOBIUM AND TANTALUM. IV. NIOBIUM TETRACHLORIDE AND ITS DECOMPOSITION INTO THE TRICHLORIDE AND THE PENTACHLORIDE. [1961] 25p. 17 re's. Order from ES 511.00 Trans. of Zeitschrift für Anorg[anische] Chem[ie] (East Germany) 1961, v. 265, p. 258ff. <i>Re 4/6 272</i> DESCRIPTORS: *Niobium, *Tantalum, *Niobium com- pounds, *Chlorides, Decomposition. (Chemistry--Inorganic, TT, v. 6, no. 7)	61-25132 I. Schaefer, H. II. Goesser, C. III. Beyer, L. IV. Stux, Erica, Akron, Ohio V. Title: Niobium... Office of Technical Services
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Contributions to the Chemistry of the Elements
Niobium and Tantalum: Part VI. The Separation
of the Elements Niobium and Tantalum by the
Reduction of Niobium Pentachloride, by
H. Schafer, C. Pietruch

GERMAN, par, Z. Anorg. Chem., Vol. CCCLXVI, 1951,
pp 151-160.

TPA3/TIB T 4263

Scientific - Chemistry
CTS/DEX

17,379

Gotheau, J. and Keller, M.
ABOUT BOROXOL-COMPOUNDS, THEIR PREPARA-
TION AND PHYSICAL AND CHEMICAL CHARAC-
TERISTICS. [1961] [7]p. (figs. tables omitted).
Order from SLA \$1.10 62-10384

Partial trans. (p. 7-14) of Zeitschrift für Anorgan-
ische Chemie (East Germany) 1951, v. 267 [no. 1/3,
p. 1-26].

DESCRIPTORS: *Halogen compounds, Boron,
Bromides, Fluorides, Chlorides, *Boron compounds,
Physical properties, Chemical properties, Synthesis.

(Chemistry--Inorganic, TT, v. 7, no. 10)

62-10384

- I. Title: Boroxol compounds
- I. Gotheau, J.
- II. Keller, M.

Office of Technical Services

The Kinetics of Oxidation, by
H. V. Wartenberg, 10 pp.
GERMAN, per, Z. Anorg. Chem. 269,
1952, pp. 76-85.
*NBS TT 70-57859

Sci/phys
Jun 70

On the Theory of Surface Diffusion Occuring in
Sintered Metals in hte Atmosphere, by M. Clasing.
GERMAN, per, Zeit Anorg Chem, Vol 271, 1952,
pp 88-92.
*Nat Bur Stand TT 70-57803

Sci-Mat
Jul 70

Concerning a New Process for the Production of
Metal Borides of the Transition Metals in
Particular Titanium and Zirconium Boride, by
R. Kioffer, F. Benesovsky, E. R. Honak, 11 pp.

GERMAN, per Z Anorg u Chem, Vol (CLXVIII, No 3,
1952, pp 191-200.

ILA 57-704

Sci - Minerals/Metals
Oct 57

54,056

Schaefer, H., Bayer, L., and Lehmann, H.
CHEMISTRY OF THE ELEMENTS NIOBIUM AND
TANTALUM. IX. EQUILIBRIUM PRESSURE OF NIO-
BIUM TETRACHLORIDE DECOMPOSITION. [1961]
16p. 10 refs.
Order from ES \$7.00

Trans. of Zeitschrift für Anorganische Chemie,
(East Germany) 1962, v. 268, p. 268-278.

DESCRIPTORS: *Niobium, *Tantalum, *Niobium com-
pounds, *Chlorides, Decomposition.

(Chemistry--Inorganic, TT, v. 6, no. 6)

61-25133

I. Schaefer, H.
II. Bayer, L.
III. Lehmann, H.
IV. Title: Equilibrium...
V. Stuz, Erica, Akron, Ohio

176751

Office of Technical Services

Preparation and Properties of the Compounds
 Li_3AlAs_2 and Li_3AlP_2 , by Robert Juza, Werner
Schulz, 10 p.

GERMAN, per, Zeit fur Anorganische Chem, 1952,
Vol CCLXIX, No 1/2, pp 1-12.

SIA 59-17958

Sci
Mar 60
Vol 2, No 11

109,526

Aluminum Triethanolamine $\text{Al}(\text{OC}_2\text{H}_4)_3$ and Its
Behavior in Coordination, by Fr. Hein, P. W. Albert,
8 p.

GERMAN, per, Zeit Anorg Chem, 1952, Vol CCLXIX,
pp 67-75.

ADB-221320

Bci
Mar 60
Vol 2, No 11

109,547

THE CHEMISTRY OF NITROSYL IONS. VI: THE CONSTITU-
TION AND REACTIONS OF DINITROGEN TETROXIDE, BY F.
SEEL, J. NOGRADI.

GERMAN, PER, Z ANORG CHEM, VOL CCLXIX, 1952, PP
102-116.

TIL T 5236

SCI - CHEM

SEP '62

210,231

About the Equilibrium Equation for the
Reaction of and the Thermo-Chemical
Properties of the Gaseous Silicon Dichlo-
rides, by Harald Schafter, Julius Nickl,
19 pp.

GERMAN, per, Z. fuer Anorganische Chemie,
Vol ~~XXIX~~ CCLXIV, No 4/5, 1953,
pp 250-264.

SLA 60-18007

Sci

Feb 62

Retardation and Acceleration of the Decomposition
of Sodium Amalgam in the Industrial Electrolysis
of Alkaline Chloride, by G. Morgenstern, 6 p.

GERMAN, partial trans, per, Zeitschrift für
Anorganische Chemie, 1953, Vol CCLXXXII, No 14,
pp 111-121.

SLA 59-17916

Sci
Feb 60
Vol 2, No 10

62-10225

Krebs, Heinz and Weber, B. F.
THE STRUCTURE AND PROPERTIES OF THE SEMI-METALS. VI. THE ALLOTROPY OF SULFUR.
[1961] 15p. 33 refs.
Order from SLA \$1.60

62-10225

I. Title: Semi-metals
I. Krebs, H.
II. Weber, B. F.
III. Title: Allotropy...

Trans. of Zeit[schrift für] Anorg[anische] Chemie
(East Germany) 1953, v. 272 [no. 5/6] p. 288-296.

DESCRIPTORS: Metals, *Sulfur, Phase studies,
Molecular structure, Physical properties, Catalysts,
Catalysis, Ions, Amines.

In analogy with the high and low molecular seleniums, the ring structure of the molecules of the corresponding forms of sulfur is discussed, and given an experimental basis. The splitting open of rings is facilitated by the presence of sulfur ions, and basic amines, and thus they are capable of catalyzing the conversions between the high and low molecular phases. Likewise, they activate sulfur in chemical reactions. (Author)

(Chemistry--Inorganic, TT,
v. 7, no. 10)
Office of Technical Services

Reactions of Cold-liquid Amalgams with Gases. I.
Reactions of Alkali and Alkaline Earth Amalgams with
Carbon Dioxide, by Hans Hohn, Erich Fitser, Hubert
Nedwed, 39 pp.

Full translation.

GERMAN, per, Z. anorg. Chem., Vol. CCLXXIV, Dec 1953,
pp. 288-315.

297-

S.L.A.

Scientific - Chemistry

26,016

Jul 55

Silicon Chalcogenides, VI. The Fibrous SiO_2
Modification by Alarich Weiss, Armin Weiss,
15 p.

GERMAN, per, Zeit für Anorganische Chemie,
1954, Vol CCLXXVI, No 1/2, pp 95-112.

SIA 60-10188

Sci
Apr 60
Vol III, No 3

112,125

Diffusion in the High Temperature Mod-
ification of Ag_2S and Cu_2S , by W. Seith
GERMAN, per, Z. Anorg. Chem. 276, 1954,
pp. 141-145.
*NBS TT 70-57296

Sci/mater
Jul 70

Pyridine Complexes of Copper I (II)-Polythionates
and Their Analytical Application, by Gerhard Heinze,
8 pp.

GERMAN, per, Zeit fur Anorganische Chemie,
Vol CCLXXVI, 1954, pp 146-154.

CIA/FDD/Z-165

28,613

Scientific - Chemistry

Nov 55 CTB/DEX

Thilo, Erich and Wicker, Wolfgang.
ON THE CHEMICAL PROOF OF STRUCTURE OF
THE HEXAGONAL, EASILY VOLATILE MODIFICA-
TION OF PHOSPHORUS(V)-OXIDE. III. THE HY-
DROLYSIS OF PHOSPHORUS(V)-OXIDE. [1960] 12p.
(figs. formulae omitted) 18 refs.

Order from SLA ml\$2.40, pb\$3.30 61-10163

Trans. of Zeitschrift für Anorganische Chemie (East
Germany) 1964, v. 27, p. 27-36

The small quantities of trimetaphosphate which form
in the hydrolysis of P_4O_{10} do not form through reac-
tion of phosphoric acid as the presumed first de-
tectable product of the hydrolysis, but from high
molecular condensed phosphates which form in small
quantities from P_4O_{10} in contact with water. It is
shown why the hydrolysis of the P_4O_{10} proceeds with
the formation of trimetaphosphate and not of
phosphoric acid. The formation of trimetaphosphate is
the first step in the formation of polyphosphates.
[Chemistry--Inorganic, IT, v. 5, no. 4]

61-10163

I. Phosphorus oxide--
Hydrolysis

I. Thilo, E.
II. Wicker, W.
III. Title: Hydrolysis.

143,213

Office of Technical Services

The Alkali-Graphite Compounds, by W. Rudorff,
B. Schulze, 12 pp.

GERMAN, PIR, 2 fur Anorg Chemie, 1954, Vol CCLXXVII.
pp 156-171.

SLA 59-15293

Sci
Oct 59
Vol 2, No 3

99,881

63-10116

Straumants, M. F. and Ballass, J. I.
REACTION OF METALLIC TITANIUM, ZIRCONIUM,
HAFNIUM, AND THORIUM WITH ACIDS, PARTICULARLY
HYDROFLUORIC ACID. 1 Nov 61, 14p.

11 refs.

Order from SLA \$1.60

63-10116

Trans. of Zeitschrift für Anorganische Chemie
(East Germany) 1953, v. 278, p. 33-41.
Another trans. is available from SLA as AEC-tr-2820,
6p.

DESCRIPTORS: *Titanium, *Zirconium, *Hafnium,
*Thorium, Resistance, Acids, *Hydrogen compounds,
*Fluorides, Surfaces, Oxides, Corrosion, Chemical
reactions.

(Chemistry--Inorganic, TT, v. 9, no. 10)

I. Straumants, M. F.
II. Ballass, J. I.

Office of Technical Services

The Electrochemical Fluorination of Inorganic
Compounds; Anodic Formation of Sulphuryl Fluoride,
by H. Schmidt, H. D. Schmidt, 14 pp.

GERMAN, per, Z. Anorg Chem, Vol CCLXXIX, 1955,
pp 289-299.

S.L.A. Tr 783/1956

Sci - Chemistry
Oct 56 CTS

39,830

100-10508

62-16641

Fritz, G.
FORMATION, PROPERTIES AND REACTIONS OF
THE SILYLPHOSPHINE. [1962] 1p.
Order from SLA \$1.10

62-16641

Abstract trans. of Zeitschrift für Anorganische
Chemie (East Germany) 1955, v. 280, no. 5/6,
p. 332-345.

DESCRIPTORS: *Silicon compounds, *Phosphines,
Synthesis, Chemical properties, Chemical reactions

1. Fritz, G.

(Chemistry--Organic, TT, v. 8, no. 7)

Office of Technical Services

Investigations of Surface Areas by the Method
of Brunauer, Emmett and Teller. The B-Point
Pressures of a Single Molecule Absorbed
Layer as Characteristic Constants, by P.
Royen, A. Orth and K. Ruths, 14 pp.

GERMAN, per, Z. Anorg Chem, Vol CCLXXXII, Oct
1955, pp 1, 2; 1-17.

SLA 57-3497

Sci

Aug 58

73,343

62-16642

Royen, P. and Reinhardt, H.
INFLUENCING THE OXIDATION EQUILIBRIUM OF
IRON BY ADDITION OF GOLD, SILVER, COPPER
OR NICKEL. [1962] 1p.
Order from SLA \$1.10 62-16642

I. Royen, P.
II. Reinhardt, H.

Abstract trans. of *Monatsh. Chem.* [Munich, Germany]
Chem[ie] (East Germany) 1955, v. 281, no. 1/2,
p. 18-36.

DESCRIPTORS: *Iron, *Oxidation equilibrium,
*Oxidation, *Additive, *Silver, *Copper, *Nickel,
Additives.

(Chemistry--Inorganic, TT, v. 8, no. 6)

Office of Technical Services

A Contribution to the Study of Silver (II) Oxide,
by G. M. Schwab, G. Hartmann.

GERMAN, no per, Z Anorg Chem, Vol CCLXXXI, 1955,
ppm183-186.

DSIR/310146/CT

Sci - Chemistry
Oct 57

53,894

Lithium and Magnesium Methylenes, by K. Ziegler,
K. Nagel, M. Patheiger, 3 p.

GERMAN, par, Z Anorg Chemie, 1955, Vol CCLXXXII,
No 1-6, pp 345-351.

HLA 59-15940

Sci
Dec 59
Vol 2, No 6

104, 114

Phases in the Cu-Sb System, by A. Boettcher.
GERMAN, par, Zeit Anorg Chem, Vol 283, 1956,
pp 26-48.
*Nat Bur Stand TT 70-57800)

Sci-Chem
Jul 70

Ehrlich, P., Alt, B., and Gentsch, L.
THE CHLOROHYDRIDES OF THE ALKALINE EARTH
METALS. [1962] 29p.
Order from K-H \$36.25 K-H 4050 c

Trans. of Zeitschrift für Anorganische Chemie
(East Germany) 1956, v. 283, p. 58-73.

DESCRIPTORS: *Chlorine compounds, *Hydrides,
*Alkaline earth metals.

(Chemistry--Inorganic, TT, v. 9, no. 10)

63-12932

- I. Ehrlich, P.
- II. Alt, B.
- III. Gentsch, L.
- IV. K-H-4050-c
- V. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

Office of Technical Services

Wannagat, U. and Hohlstein, G.
REACTIONS OF DINITROSYL PYROSULFATE. [1962]
14p.
Order from ATS \$20.50 ATS-2SP64G

Trans. of Zeitschrift für Anorganische Chemie
(East Germany) 1956, v. 284, no. 4/6, p. 177-190.

DESCRIPTORS: *Nitrogen compounds, *Sulfates,
Chemical reactions.

(Chemistry--Physical, TT, v. 9, no. 2)

63-12034

- I. Wannagat, U.
- II. Hohlstein, G.
- III. ATS-2SP64G
- IV. Associated Technical
Services, Inc., East
Orange, N. J.

Office of Technical Services

Blue Solutions of Sodium in Methylamine, by
O. Kohlstein, U. Wessagat.

GERMAN, per, Z Anorg Chem, 1976, Vol 234, pp 191-196.

Q413

Apr 60

Goehring, Margot and Voigt, Dietrich.
 DISULFUR DINITRIDE AND A SULFUR NITRIDE OF
 THE SERIES $(\text{SN})_x$ (Über Dischwefel-Dinitrid, S_2N_2 ,
 und Polyschwefelstickstoff, $(\text{SN})_x$). [1961] [24]p.
 (foreign text included) 21 refs.
 Available on loan from SLA

62-10443

Trans. of Zeitschrift für Anorganische Chemie (East
 Germany) 1956, v. 285 [no. 3/6] p. 181-190
 Other translations are available from ATS \$12.60 as
 ATS-44L36G [1960] 9p. and from SLA mi\$1.80,
 ph\$1.80 as 60-16909, Dec 56, 7p.

DESCRIPTORS: *Sulfur compounds, *Nitrides, De-
 composition, Polymerization, Dissociation, Chemical
 analysis

For abstract see Technical Translations 4: 447, 1960.

(Chemistry--Inorganic, TT, v. 7, no. 4)

62-10443

I. Goehring, M.
 II. Voigt, D.

Office of Technical Services

61-18252

Schäfer, Harald, Jacob, Herbert, and Etzel, Karl.
CHEMICAL TRANSPORT REACTIONS. I. ON THE
TRANSPORT OF PRECIPITATES IN TEMPERATURE
GRADIENTS BY MEANS OF HETEROGENEOUS
EQUILIBRIUMS. [1961] 26p. 22 refs.

Order from SLA \$2.60

61-18252

Trans. of Zeit[schrift] f[ür] Anorg[anische] Chemie
(East Germany) 1956, v. 286 [no. 1] p. 27-41.

DESCRIPTORS: *Chemical equilibrium, Convection,
Thermal diffusion, *Electrostatic precipitation, Gases,
Diffusion, Chemical reactions, Thermochemistry,
Decomposition, *Transport properties.

If reversible reactions such as $\text{Si} + \text{SiCl}_4(\text{gaseous}) \rightleftharpoons$
 $2 \text{SiCl}_2(\text{gaseous})$ and $\text{Fe}_2\text{O}_3 + 6 \text{HCl} \rightleftharpoons 2 \text{FeCl}_3(\text{gaseous})$
 $+ 3 \text{H}_2\text{O}$ take place in reaction tubes which lie in a tem-
perature gradient (for example, 1000/800° C), the
precipitate is taken up at the higher temperature and is
(Chemistry--Inorganic, TT, v. 6, no. 10) (over)

I. Title: Transport reactions
I. Schäfer, H.
II. Jacob, H.
III. Etzel, K.
IV. Title: On the Transport...

92512 to 1424
(9207759)

187242

Office of Technical Services

61-22640

1. Title: Transport reactions. II. THE AP-
PLICATION OF THE DECOMPOSITION EQUILIBRIUM
OF IRON (II) AND NICKEL (II) HALIDES TO THE
TRANSPORT OF THE METAL IN A TEMPERATURE
GRADIENT. [1961] 12p.
Order from ATS \$14.75

ATS-63NS1G

Trans. of ~~Mineralogisch~~ Anorg[anische] Chem[ie]
(East Germany) 1961, v. 256, p. 42-53.

DESCRIPTORS: Iron compounds, Nickel compounds,
*Halides, *Decomposition, Iron, Nickel, Metals,
Thermodynamics, *Chemical equilibrium, Chemical
reactions

- I. Title: Transport reactions
- I. Schfer, H.
- II. Jacob, H.
- III. Etzel, K.
- IV. ATS-63NS1G
- V. Associated Technical
Services, Inc., East
Orange, N. J.

170342

Kroeger, Carl and Janetzko, Wilhelm.
A CONTRIBUTION TO THE THERMOCHEMISTRY
OF NITRATE GLASSES. [1961] [12]p. 4 refs.
Order from SLA mi\$2.40, pi\$3.30 61-10948

Trans. of Zeitschrift für Anorganische Chemie
(East Germany) 1956, v. 287, p. 28-32.

61-10948

1. Glass--Thermochemistry
2. Glass--Phase studies
3. Title: Nitrate glass
- I. Kroeger, C.
- II. Janetzko, W.

148741

Office of Technical Services

(Materials--Ceramics, TT, v. 5, no. 12)

Catalytic Decomposition of Peroxydisulfuric
Acid. Part I, by Helene Galiba, L. J. Csanyi,
Z. G. Szabo, 23 pp.

GERMAN, per, Z für Anorganische Chemie,
Vol COLLOXVII, 1956, pp 152-163.

RLI RIB Rept. 97036

Sci
Feb 62
Vol III, No 11

184, 878

Nitrides of the Rare Earth Metals, by W. Klemm,
G. Winkelmann, 5 pp.

GERMAN, per, 2 Anorg Chem, Vol OCLXXXVIII, 1956,
pp 87-90. 9079459

AIRC Tr-4654

164, 917

Sci
Aug 61

The High Nickel Hydroxides: The Oxidation of
Nickel 2 Hydroxide, by W. Feitknecht, H. R.
Christen, H. Studer.

GERMAN, par, Z. Anorg Chem, No CCLXXXIII, 1956,
pp 88-99.

R.A.E. Farnborough Tr 610

Sci - Chem, Min/met
May 57 CTS/dex

437,555

Catalytic Decomposition of Peroxydisulfuric
Acid. Part I, by Helene Galiba, L. J. Csanyi,
Z. G. Szabo, 23 pp.

GERMAN, R., Revue Chimique Inorganique,
Vol COLLOQUII, 1950, pp 152-160.

RIA RLS Rept. 97036

Sci
Feb 62
Vol III, No 11

A Mica-Like Modification of Silicon Ox⁴Hydride
[HSiO_{1.5}]_x, by Egon Von Wiber^g, Walter Sinner^g, 20 pp
GERMAN, per. Z. fuer Anorg Chem, Vol CCLXXXIII, No 1/6
1956, pp 401-413.

SLA 59-10823

Sci - Chem

Sep 59

Vol 2, No 1

97,256

Schmidt, Max.

ACIDS OF SULFUR. III. ANHYDROUS POLYTHIONIC ACIDS (SULFANE DISULFONIC ACIDS): $H_2S_3O_6$, $H_2S_4O_6$, $H_2S_5O_6$, $H_2S_6O_6$, AND $H_2S_7O_6$: PREPARATION OF SOLUTIONS AND SALTS OF OCTATHIONIC ACID, DECATHIONIC ACID AND DODECATHIONIC ACID. [1962] 29p. 3 refs.
Order from SLA \$2.60

62-14449

Trans. of Zeitschrift für Anorg[anische] Chem[ie] (East Germany) 1957, v. 289 [no. 1/4] p. 175-192.

DESCRIPTORS: *Sulfur, Acids, *Sulfonic acids, *Thiols, Preparation, Sulfites, Iodine.

The discovery of the sulfane monosulfonic acids. $H_2S_xO_3$, disclosed two new methods which may be applied to the polythionic acids: (1) the sulfane monosulfonic acids react directly with SO_3 forming the anhydrous polythionic acids: $H_2S_{x-1}O_3 \cdot SO_3 \rightarrow H_2S_xO_6$; (Chemistry-Inorganic, TT, v. 8, no. 9) (over)

62-14449

- I. Schmidt, M.
- II. Title: Anhydrous ...
- III. Title: Preparation ...

Office of Technical Services

61-10563

Gutmann, V. and Mairinger, P.
THE SOLVENT AND PHOSPHORUS OXYCHLORIDE
AND
REACTS OF THE TAIN IN THE [1960] [10]p
11 refs.

Trans. of Chem. Soc. Faraday Div. Chemie
Graz Germany, 1960, V. 280, no. 5/6, p. 279-287.

The AlCl₃ electrode responds to chloride ion activity in phosphorus oxychloride and hence acts as a Cl⁻ electrode. Its use in reactions where allowed potential changes on the basis of the results of the potential difference in the relative basicity of a number of phosphorus oxychloride. SbCl₅ in phosphorus oxychloride is used as a standard. It is shown in the following order of reactivity: $\text{PbCl}_2 < \text{ZnCl}_2 < \text{SbCl}_5 < \text{PbCl}_2 < \text{SnCl}_4 < \text{TaCl}_5 < \text{NbCl}_5 < \text{AlCl}_3 < \text{PbCl}_2 < \text{TiCl}_4 < (\text{CH}_3)_4\text{NCl} < \text{pyridine} < (\text{C}_2\text{H}_5)_4\text{NCl}$. A list of indicators give color changes in phosphorus oxychloride. (Chemistry-Physical, TT, v. 5, no. 7) (over)

1. Phosphorus oxychlorides - Electrochemistry.
2. Title: Potentiometric titration.
1. Gutmann, V.
2. Mairinger, P.
- III - Title: Potentiometric...

148,538

148,538

Office of Technical Services

About the Transport of Silicon in a
Temperature Gradient Under the In-
fluence of Silicon Di-Halogenide and
About the Transport Direction as a
Function of Pressure, by ~~XXX~~ Harald
Schaffner, Bernhard Morcher, 18 pp.

GERMAN, per, Z fuer Anorganische Chemie,
Vol CCXC, No 5/6, 1957, pp 279-291.

SIA 60-180084

Sci

Feb 62

Note on the Preparation of Silicon Monobromide, by
A. Pfugmacher, I. Rohrmann.

GERMAN, per, Z Anorg Chem, Vol CCXC, 1957, pp 101,
102.

DSIR/30905/CT

Sci - Chemistry
Mar 58

59, 884

62-14028

Pflugmacher, A. and Dahmen, H.
ON THE FORMATION OF SILICON-NITROGEN
COMPOUNDS IN THE GLOW DISCHARGE: TRIS-
TRICHLOROSILYLAMINE ($\text{SiCl}_3)_3\text{N}$. [1962] 6p.
(4 figs. omitted) 7 refs.
Order from SLA \$1.10

52-14028

Trans. of Zeitschrift für Anorganische Chemie (East
Germany) 1957, v. 290, p. 184-190.

DESCRIPTORS: *Glow discharges, *Silicon com-
pounds, *Nitrogen compounds, Production

By the reaction of SiCl_4 and N_2 in the glow discharge
($\text{SiCl}_3)_3\text{N}$ is formed as a crystalline substance in the
presence of a series of oily and resinous products.
It occurs in two polymorphic modifications of which
the stable has a f.p. of 98° and the unstable of 44°C .
Through condensation by elimination of SiCl_4 from
($\text{SiCl}_3)_3\text{N}$ two series of compounds result, one of
which possesses a cyclic structure and crystalline
(Chemistry--Inorganic, TT, v. 8, no. 7) (over)

- I. Pflugmacher, A.
- II. Dahmen, H.
- III. Title: Tris-Trichlorosilyla-
mine...

Office of Technical Services

About the Transport of Silicon in a
Temperature Gradient Under the In-
fluence of Silicon Di-Halogenide and
About the Transport Direction as a
Function of Pressure, by ~~HRG~~ Harald
Schaffner, Bernhard Morcher, 18 pp.

GERMAN, per, Z fuer Anorganische Chemie,
Vol CCXC, No 5/6, 1957, pp 279-291.

SLA 60-180084

Sci

186, 687

Feb 62

Sulfur Chemistry XXXVII, by F. Feber, K.
H. used, H. Weber, 23 pp.

GERMAN, per, 2 fuer Anorgan Chemie,
Vol CCXC, 1957, pp 303-319.

SLA 60-16878

Sci
Vol IV, No 7
Apr 62

192, 616

61-18662

Schäfer, Harald and Morcher, Bernhard.
CHEMICAL TRANSPORT REACTIONS. IV. MIGRA-
TION OF SILICON DIOXIDE IN A TEMPERATURE
GRADIENT IN ASSOCIATION WITH SILICON MON-
OXIDE AND SILICON HALIDES (Die Wanderung von
Siliciumdioxid im Temperaturegefälle unter Mitwirkung
von Siliciummonoxyd und Siliciumhalogeniden). [1961]
10p. 17 refs.
Order from SLA 51-10

61-18662

Trans. of Zeitschrift für Anorganische Chemie
(East Germany) 1967, v. 291, p. 221-226.

DESCRIPTORS: *Silicon compounds, *Dioxides,
*Monoxides, *Halides, Chemical reactions, Separation,
Condensation reactions, Decomposition,
Thermodynamics.

When a mixture of Si and SiO₂ is heated, after addition
(Chemistry--Inorganic, TT, v. 6, no. 10) (over)

- I. Title: Transport reactions
- I. Schäfer, H.
- II. Morcher, B.
- III. Title: Migration...

Office of Technical Services

Chemical Studies of Silicates, XIX. Products of
The Action of Water on β - Ca_2SiO_4 up to 120°C.
by Herbert Funk, 18 p.

GERMAN, per, Z Anorg Chem, 1957, Vol CCKCI,
No 5/6, pp 276-293.

BLA 59-17210

Sci
Dec 59
Vol 2, No 6

104,133

Schafer, H. and Etzel, K.
THE MIGRATION OF COPPER (I) OXIDE AND OF
COPPER IN TEMPERATURE GRADIENTS. Pt. 5. of
Chemical Transport Reactions. [1961] 10p.
Order from ATS \$14.10 ATS-64N51G

Trans. of Zeitschrift für Anorganische Chemie
(East Germany) 1957, v. 291, p. 294-304.

DESCRIPTORS: Copper compounds, *Oxides,
Temperature, *Copper, Chemical reactions, *Trans-
port properties, Liquid metals.

(Chemistry--Physical, TT, v. 6, no. 4)

61-22905

I. Schafer, H.
II. Etzel, K.
III. Title: Chemical ...
IV. ATS-64N51G
V. Associated Technical
Services, Inc., East
Orange, N. J.

177741

Office of Technical Services

... of ... in ...
... during Thermal Decomposition ...
... of Aluminum
Hydrides. III. Influence of the ...
on the Course of Decomposition of ... Hydrides, by
Euse Ginsberg, Werner Huetting, Gusti Lichtenberg,
15 pp.

GERMAN, part 2, Zeits. Chem., Vol CCXIII, No 3/4,
1957, pp 206-213

SLA 59-15075

Sci - Chem
Sep 59
Vol 2, No 2

97,975

The Influence of Raw Material on Crystalline Shapes Formed During Thermal Decomposition and Transformation, Respectively, of Aluminum Hydroxides. I. The Crystalline Forms of Thermal Decomposition of Aluminum Hydroxides, by Ems Ginsberg, Werner Huettig, Gustl Strunk-Lichtenberg, 25 pp.

GERMAN, per, Z fuer Anorg Chemie, Vol CCXCIII, No 1/2, 1957, pp 33-46.

SIA 59-15076

Nov 59
Sci
Vol 2, No 3

101, 717

Electrolysis of Cyanides. II. Electrolyses of Cyanides
in Anhydrous, Liquid Ammonia, by H. Schmidt, H. Mainert,
15 pp.

GERMAN, per, Z. fur Anorg Chem, Vol CCXCV, No 3/4,
1958, pp 156-172.

Asso Tech Serv
61K28G

Sci - Phys
OTS I, 9
Jun 59

89,533

Electrolysis of Cyanides. IIV. Electrolysis of
Cyanides in Anhydrous Pyridine, by H. Schmidt, H.
Meinert, ~~1958~~. 11 pp.

GERMAN, par, Z fur Anorg Chem, Vol CCXCV, No 3/4,
1958, pp 173-184.

Asso Tech Serv
Genzko

Sci - Phys
OTS I, 9
Jun 59

89,532

The Molecular State in Aqueous Solutions of
Arsenious Acid, by G. Jander, H. Hofmann. UFCL

GERMAN, per, Z. Anorg. Chem., Vol CCXCVI, 1958,
pp 134-153.

DBIR/36599/CT

Sci - Chem
Nov 59

99,795

Products of the Action of Water on Different Forms
of Ca_2SiO_4 at 120° to 350°C and Conditions of Their
Formation, by Herbert Funk, 18 p.

GERMAN, par, Zeit Anorg Chem, 1953, Vol CCXCVII,
pp 103-120.

SLA 60-10702

Sci

May 60

Vol 3, No 4

116, 764

ENTHALPY OF FORMATION OF ALUMINUM PHOSPHATE, BY
ROBERT JUZA, GISELA WAINOFF, ET AL, 8 PP.

GERMAN, PER, Z. FUER ANORGANISCHE CHEMIE, VOL CCXCVI,
1958, PP 157-163.

XX CTS 60-19160

~~XXX~~

SCI - CHEM
11 OCT 62
VOL VIII, NO 1

212,314

Becke-Goehring, Margot and Sambeth, Jorg.
ON PHOSPHORUS-NITROGEN COMPOUNDS. VIII.
ON THE REACTION BETWEEN PHOSPHORUS(V)-
OXIDE AND AMMONIA. [1960] 9p. (6 formulae
omitted) 18 refs.
Order from SLA m\$1.80, ph\$1.80 61-10227

Trans. of [Zeitschrift für Anorganische Chemie
(Basel Germany)] 1958, v. 297, p. 287-293.

151785

(Chemistry--Physical, TT, v. 3, no. 9)

61-10227

1. Phosphorus compounds--
Chemical reactions
 2. Nitrogen compounds--
Chemical reactions
 3. Ammonia--Chemical
reactions
- I. Becke-Goehring, M.
 - II. Sambeth, J.
 - III. Title: On the Reaction...

Office of Technical Services

A Universal Thermobalance of High Accuracy,
by H. Peters, H. G. Wiedemann.

GERMAN, per, Z. NMR. Anal. Chem., 1959,
Vol. CCXCVIII, 1959, pp 202-211.

Broken Hill Prop Co Ltd
(CRL/T. 507)

Sci - Engr
Apr 62

191,419

Schwertmann, U.
THE SYNTHESIS OF DEFINITE IRON OXIDES
UNDER VARIOUS CONDITIONS. [1962] 12p. (figs.
omitted) 25 refs.
Order from SLA \$1.60

62-16447

Trans. of Z[eitschrift für] Anorg[anische] Chemie
(East Germany) 1959, v. 298, p. 338-348.

DESCRIPTORS: *Ores, *Iron compounds, Oxides,
Synthesis, Oxidation, Aging, Gels, *Crystal struc-
ture, X-ray diffraction analysis.

(Earth Sciences--Mineralogy, TT, v. 8, no. 10)

62-16447

1. Schwertmann, U.

Office of Technical Services

Börnert, Heinz und Weber, Ulrich von.
THE PERMEATION OF HYDROGEN GAS THROUGH
QUARTZ GLASS COATED WITH PALLADIUM (Notiz
über die Permeation des Wasserstoffs durch Palladi-
umbedecktes Quarzglas). [1962] 17p. (foreign text
included) 3 refs.

Order from SLA \$11.00

62-16416

Trans. of Zeitschrift für Anorganische Chemie
(East Germany) 1959, v. 500, p. 81-83.

DESCRIPTORS: *Glass, Coatings, *Palladium,
Hydrogen, Gases, Permeability, Quartz, *Metal
films, *Effusion.

The permeation of hydrogen through quartz glass
coated by a film of palladium is in the temperature
range from 400 to 700° C, 1.44 times greater than
that through pure quartz glass. Above 700° C, this
ratio decreases by a factor of 1.5 for each 100° C.
(Abridged)

(Chemistry - Physical) (TE, v. 8, no. 9)

62-16416

I. Börner, H.
II. Weber, U. von

Office of Technical Services

Siebert, Hans.
PEROXYANTIMONATES. 5 Jan 61, 10p. 11 refs.
Order from SLA \$1.10 63-10547

Trans. of [Zeitschrift für Anorganische Chemie] (East Germany) 1959, v. 301, p. 316-322.

DESCRIPTORS: *Potassium compounds, *Sodium compounds, *Antimonates, *Peroxides, Synthesis, Chemical properties, Spectra (Infrared), Chemical analysis

Peroxyantimonates are produced by treating solutions of potassium antimonates with H_2O_2 . They are amorphous, difficultly soluble, polymeric substances. Among other things were isolated compounds of the approximate composition $KSbO_4 \cdot 1.7 H_2O$, $NaSbO_4 \cdot 2 H_2O$, $KSbO_4 \cdot 1.8 H_2O_2$, and $K_2HSb_3O_{12} \cdot 3.5 H_2O$. The composition of the peroxyantimonates is discussed with the aid of their infrared spectra. (Author)
(Chemistry--Inorganic, TT, v. 10, no. 3)

63-10547

1. Siebert, H.

Office of Technical Services

Boehm, H. P. and Schneider, M.
THE SURFACE HYDROXYL GROUPS OF AMOR-
PHOUS SILICA (AEROSIL) AND THEIR REACTIONS.
[1961] 10p. 32 refs.

Order from SLA \$1.10

61-14935

Trans. of Z[eitschrift für] Anorg[anische] Chem[ie]
(East Germany) 1959, v. 301, no. 5/6, p. 326-335.

DESCRIPTORS: *Silicon compounds, Dioxides,
*Hydroxides, Chemical reactions, Surfaces.

Reactions of surface hydroxyl groups have been in-
vestigated with finely divided amorphous silica
(Aerosil). The hydroxyl groups react with calcium hy-
droxide; esters are formed by reaction with alcohols
and diazomethane. Heating with thionyl chloride leads
to substitution by chlorine. This reaction is especially
suited for the quantitative determination of hydroxyl
groups bound to silica surfaces. (Author)

(Chemistry--Physical, TT, v. 6, no. 3)

61-14935

I. Boehm, H. P.
II. Schneider, M.

17521

Office of Technical Services

Nicolau, C. S. and Thom, H. G.
INVESTIGATIONS OF ELECTRON SPIN RESONANCES
AND ELECTRICAL RESISTANCE OF PLATINUM-
CARBON CATALYSTS. [1961] 8p.
Order from ATS \$7.85 ATS-54N48G

Trans. of *Zeitschrift für Anorganische Chemie*
(East Germany) 1960, v. 303, p. 133-140.

DESCRIPTORS: *Catalysts, *Platinum catalysts,
Carbons, Electrical properties, Resistance, Electrons,
Spin, Resonance.

(Chemistry--Physical, TT, v. 6, no. 1)

61-22321

I. Nicolau, C. S.
II. Thom, H. G.
III. ATS-54N48G
IV. Associated Technical
Services, Inc.,
East Orange, N. J.

161826

Office of Technical Services

Primary Intermediate Products in the
Hydration of Beta-Dicalcium Silicate and
the Mechanism of Formation of Lime-Rich
Tobermorite-Like Calcium Silicate Hydrate.
by H. Funk.

GERMAN, per Z. anorg. Chem., Vol. 304, No.
1/2, 1960, pp 12-24
GB 334/CT.18 - 8050d

Sci -

Aug 67

337-555

63-10767

Schafer, Harold and Kahlenberg, Franz.
CONTRIBUTION TO THE CHEMISTRY OF THE ELE-
MENTS NIOBIUM AND TANTALUM. XXII. THE
ENTHALPY OF FORMATION OF TANTALUM CHLO-
RIDE AND THE THERMOCHEMISTRY OF THE CHLO-
RIDES $TaCl_5$, $TaCl_4$, and $TaCl_3$. [1962] 18p. 34 refs.
Order from SLA \$1.60 63-10767

I. Schafer, H.
II. Kahlenberg, F.
III. Title: Enthalpy...

Trans. of Zeitschrift für Anorganische Chemie
(East Germany) 1960, v. 305, p. 178-189.

DESCRIPTORS: Niobium, *Tantalum, *Tantalum com-
pounds, *Chlorides, Thermochemistry, *Enthalpy,
Heat of formation.

The enthalpy of formation of tantalum tetrachloride was
estimated by determination of the heat of solution:
 $\Delta H(TaCl_4, 298) = -168.8 \pm 0.5$ kcal/mole. The enthalpy
of formation of $TaCl_5$ (s), $TaCl_5$ (g), $TaCl_4$ (s),
(Chemistry--Inorganic, TT, v. 10, no. 1) (over)

Office of Technical Services

Studies on the Chemistry of Niobium and Tantalum.
Part 23. Memmochemistry of Niobium Chloride, Part 24.
Enthalpy of Formation, Saturation Pressure, and
Thermochemical Behaviour of Niobium Cychloride
~~NbOCl₃~~ Nbocl₃, by H. Schafer, F. Kahlenberg.

GERMAN, per, Z fuer Anorg Chem, Vol CCCV, No 5-6,
Aug 1960, pp 291-340.

*U.K. ²Atomic Energy Authority
Risley, TRG Inf Series 51(S)

Sci - Chem
Nov 61.

61-18633

Wieker, Wolfgang and Thilo, Erich.
THE CHEMISTRY OF THE CONDENSED PHOSPHATES
AND ARSENATES. XXVIII. THE ANION DEGRADA-
TION OF CONDENSED PHOSPHATES. II. CATALYTIC
EFFECT OF METAL IONS UPON THE DEGRADA-
TION OF POLYPHOSPHATES IN AQUEOUS SOLUTION.
[1961] 20p. (12 refs. omitted).
Order from SLA \$1.60

61-18633

Trans. of Zeitschrift für Anorganische Chemie (East
Germany) 1960, v. 306, no. 1/2, p. 48-62.

DESCRIPTORS: *Phosphates, Titration, Solutions,
*Condensation reactions, Hydrolysis, Catalysts,
Alkaline earths, Aluminum compounds, Chlorides,
*Arsenates, Ions.

By titrimetric persecution of the degradation of poly-
phosphates in aqueous solutions it has been proved that
this reaction is catalytically accelerated, the type of
(Chemistry--Inorganic, TT, v. 6, no. 10) (over)

- I. Wieker, W.
- II. Thilo, E.
- III. Title: Anion...
- IV. Title: Catalytic...

1268

Office of Technical Services

Diffusion in the Sn-Pb Alloy System, by
H. Cordes.
GERMAN, per. Z. Anorg. Chem., No 306, 1960, pp 121-
132.
*NBS TT 70-57426

Sci-Mat
Aug 70

Andress, Karl R. and Nachtrab, Reimar.
THE BOND CONDITIONS IN METAL-POLYPHOS-
PHATE COMPLEXES. [Pt. 2 of] Complex Formation
by Sodium Triphosphate with Divalent Metal Ions.
[1962] 13p. 8 refs.
Order from SLA \$1.60

62-14975

Trans. of Z[schrift für] Anorganische] Chem[ie]
(East Germany) 1961, v. 311 [no. 1/2] p. 13-21.

DESCRIPTORS: *Chemical bonds, *Complex com-
pounds, *Metallic compounds, *Sodium compounds,
*Phosphates, Phosphoric acids, Ions, Hydrolysis.

The metal-oxygen (Me-O) compounds such as occur
in metal-polyphosphate complexes on terminal and
intermediate PO_4 tetrahedra of phosphate chains are
discussed in detail. It is found that the stability of
such Me-O bonds depend primarily on how many free
(Chemistry--Inorganic, TT, v. 8, no. 6; (over)

62-14975

I. Andress, K. R.
II. Nachtrab, R.
III. Title: Complex...

Office of Technical Services

Andress, Karl R. and Nachtrab, Reimar.
THE COMPLEX-FORMING REACTION BETWEEN
SODIUM TRIPHOSPHATE AND DIVALENT METAL
IONS. Pt. 3 of Complex Formation by Sodium
Triphosphate with Divalent Metal Ions. [1962] 19p.
3 refs.

Order from SLA \$1.60

62-14974

Trans. of 2[eitschrift für] Anorg[anische] Chem[ie]
(East Germany) 1961, v. 311 [no. 1/2] p. 22-31.

DESCRIPTORS: *Chemical bonds, *Complex com-
pounds, *Metallic compounds, *Sodium compounds,
*Phosphates, Ions, Chemical reactions, Chemical
equilibrium.

From the experimentally determined complex forma-
tion constants of the Me (II)-triphosphate complexes,
the equilibrium constants for the reaction of the
formation of this complex were calculated. From the
(Chemistry--Inorganic, TT, v. 8, no. 6) (over)

62-14974

I. Andress, K. R.
II. Nachtrab, R.
III. Title: Complex...

Office of Technical Services

Hecht, Horstmar.

THE DEHYDRATION OF METAL-CHLORIDE HYDRATES WITH THIONYL CHLORIDE AND WITH CARBONYL CHLORIDE. 7 Dec 62, 22p. 16 refs. Order from SLA \$2.60

63-10561

63-10561

I. Hecht, H

Trans. of Zeitschrift für Anorganische Chemie (East Germany) 1961, v. 254, p. 37-51.

DESCRIPTORS: *Dehydration, *Sulfonyl compounds, *Chlorides, *Hydrates, *Phosgene, Thallium compounds, Metallic compounds.

A method is described for the dehydration of hydrates. The method is based on the fact that the hydrate water is converted by reaction with thionyl chloride or carbonyl chloride into gaseous compounds (SO_2 or CO_2 and HCl), which can be separated directly from the anhydrous compounds. The methods are applied to the dehydration of a series of metal chloride hydrates. The preparation (Chemistry--Inorganic, TT, v. 9, no. 11) (over)

Office of Technical Services

Contributions to the Complex Chemistry of the
Phosphines and Phosphine Oxides. IX. Heavy Metal
Complexes of Tetracyclohexyl Diphosphine, by
K. Issleib, G. Schwager, 11 pp.

GERMAN, per, Z. für Anorganische Chemie,
Vol CXXXI, No 1/2, 1961, pp 83-91.

SLA 62-24542

Sci
Feb 63
Vol VIII, No 11

222,453

On Hydrogenation of Phosphorus Halides With Metal
Hydrides¹ (On the Problem of the Existence of a
Phosphaneoxide PH_3O), by Igor Wilczak, Gunther
Miller-Schlegelmayer, 18 pp.

CCCVIII

CHEMAB, per, Ziet Amerg Chemie, Vol XXXX, No 1/6,
1961, pp 352-368.

07.5.61.2000
CIA/PED XX-1076

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Chem

172.461

Nov 61

Goubreau, J. and Ricker, E.
HYDRAZINE-BORANE AND ITS PYROLYSIS PRODUCTS. 17 Oct 62. 3p. 14 refs.
Order from: SLA \$2.60 63-10585

Trans. of Z[eitschrift für] Anorg[anische] Chemie] (East Germany) 1961, v. 110, p. 123-142.

DESCRIPTORS: *Hydrazines, *Boranes, Pyrolysis, Solubility, Dipole moments, Crystal structure, Spectra (Infrared).

Hydrazine-mono-borane, n. p. 61°, is obtained in good yield by the reaction of hydrazine sulfate with sodium borohydride. Its solubilities, dipole moment, crystal structure, and IR spectra were investigated. During pyrolysis, one mole of hydrogen and a portion of the hydrazine are quickly released. Under controlled conditions, H₂B-NH-NH-BH₂ can be isolated from the reaction. (Chemistry--Organic, IT, v. 10, no. 2) (over)

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